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# Strategic Research Monthly Review

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# ⊕ Strategic Research Monthly Review

May 1977

This publication of the Office of Strategic Research contains substantive findings and analytical judgments that are preliminary in nature and have not been formally coordinated with other CIA and intelligence community components.

Comments and queries regarding the articles are welcomed. They may be directed to the person named following each item.

## C o n t e n t s

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A reduction-of-budget agreement with the Soviet Union has been suggested as a means of controlling the arms race. In our judgment, however, the difficulties of defining and measuring defense spending and the problems of verification make this approach unworkable under present circumstances.

**The Soviet General Staff Academy**

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A recent Soviet history of the General Staff Academy provides new insights into this prestigious institution's subordination, organization, and functions, and its impact on the careers of the senior military command elements of the Soviet Union and its Warsaw Pact allies.

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25X1**The Collegium of the Soviet Ministry  
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Recent information, examined in conjunction with older material, has revealed the membership of the Collegium and its probable functions in the defense establishment.

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**Dollar Cost Implications of Soviet  
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indicates that the SA-2 and SA-3 systems are highly reliable and have maintenance features that are different from those of US SAM systems. These differences result in estimates of the dollar cost of operating these systems which are substantially lower than estimates based on costs of US SAM systems.

## Problems With a Reduction-of-Budget Approach to Arms Control

Reduction-of-budget (ROB) agreements have long been considered as a means of controlling the arms race, and this approach has recently received increased attention in the US. A report written by a study panel commissioned by the United Nations Association of the United States of America (UNA-USA)—a prestigious private nonprofit organization—recommended that the US seek a negotiated mutual freeze on defense spending with the Soviet Union as part of a total military budget and force reduction policy. A similar recommendation was made by Wassily Leontief, the prominent US economist and Nobel Prize winner, in a recent editorial in *The New York Times*.<sup>\*</sup> Leontief noted the great waste of the US-USSR arms race and the need for an agreement between the two nations to limit the competitive expansion of military expenditures.

The UNA-USA study pointed out the pitfalls of an ROB agreement, but felt that it could be used to augment and strengthen a force reduction package. Leontief also stressed the feasibility of such an approach:

The currently available techniques of economic-data gathering and analysis are powerful enough and accurate enough to enable each side to express in comparable terms the real level of its own and its opponent's total military spending and output.

In our judgment, however, such an agreement between the US and the USSR is not possible at this time because of the problems of verification and the difficulties of defining and measuring defense spending.

**Definition.** A concise and mutually acceptable definition of "defense" is the first step in the formulation of a comprehensive ROB agreement. Ambiguous activities such as civil defense, military aid, commodity stockpiling, and pensions may or may not be classified as defense activities. Moreover, some military-related activities in both the Soviet Union and the US have no direct counterparts in the other country. For example, the Soviet Union has large paramilitary forces—border guards, construction troops, transportation troops, and internal security troops—but has no equivalent of the US Coast Guard.

Additionally, an ROB agreement may or may not include military activities that primarily benefit the civilian economy and, conversely, civilian activities which

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<sup>\*</sup> Wassily Leontief, "Cutting U.S. and Soviet Military Outlays," *The New York Times*, 24 March 1977.

support the military sector. For example, in the US the Corps of Engineers and the Hydrographic Office provide services to the civilian sector, while civilian highway construction and subsidies to the maritime shipbuilding industry add to national defense capabilities. There are activities in the Soviet Union also which provide spillover benefits between the military and civilian sectors—e.g., military construction and grain harvest activities.

**Measurement.** The radically different economic systems of the US and the USSR make measurement of defense effort under an ROB agreement especially difficult. Prices in the US are to a large extent determined in competitive markets and usually reflect the cost of resources. In the Soviet Union, on the other hand, prices and resource allocation are largely administratively planned by central authorities and are generally far less reflective of actual resource costs.

As a result, any comparison of US and Soviet defense activities based on Soviet ruble expenditures and US dollar expenditures is likely to be misleading. Moreover, the Soviet government's direct control over prices allows it to vary arbitrarily the value of its military activities. For example, Soviet authorities could simply adjust military prices downward to fit their interests.

**Inflation.** An ROB limitation agreement must also distinguish between nominal and real changes in military expenditures. Because of inflation, larger defense budgets are usually required over time even if the level of defense activities remains the same. Wholesale prices in the US have increased almost 9 percent annually since 1970, while prices in the USSR, according to published Soviet statistics, have remained stable over the same period of time. (Western analysts and some Soviet economists believe that actual inflation in the Soviet Union has averaged 1 to 2 percent annually in recent years.) Thus, because of the differences in inflation rates, the USSR would gain an advantage over time in any simple across-the-board budget limitation that did not account for inflation.

**Verification.** The most difficult obstacle to the implementation of the budget limitation approach is the problem of verification. A workable verification mechanism would require a method for collecting, processing, and analyzing a large amount of financial and economic data. This would require access to information never before divulged to foreigners by either the US or the USSR and would involve the release of classified data. A large inspection force of accountants, economists, and financial experts would have to be permanently stationed in each country, and even then full compliance could not be ensured.

Any agreement that relied only upon officially announced Soviet budgetary data could not be verified. The Soviets release only one official figure annually—the

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single line item labeled "Defense" in the Soviet state budget. The activities included in this number have never been clearly defined. Moreover, the published numbers are patently too low to procure, operate, and maintain a force the size of the Soviet military establishment or the other military-related activities such as RDT&E, civil defense, foreign military aid, and military stockpiling, about which the Soviets say nothing. Also, since 1970 the "Defense" numbers have remained constant or have decreased while Soviet military forces have grown.\*

Some defense expenditures probably are hidden in other parts of the Soviet state budget. We believe, for example, that military RDT&E probably is financed largely from the "Science" line of the budget. Some military expenditures may also be financed from nonbudget sources.

Independent examination of USSR force levels and military activities by national means could possibly be used to verify Soviet compliance with an ROB agreement. However, since such an agreement would be stated in terms of military budgets, a single, aggregate nominal value still has to be assigned to the Soviet forces and activities observed. We do not believe that any such measure we can produce is accurate enough to provide an independent monitoring mechanism in the short run. Moreover, it is unlikely that we can improve upon the accuracy of this method sufficiently in the future—e.g., by adding more analytical resources to this effort and by more careful direction of present resources—to rely upon it as an independent ROB verification mechanism. At best, flagrant violations probably could be detected within several years by this method, but the Soviet government still could hide substantial violations for even longer periods of time. Furthermore, it is unlikely that the Soviets would agree to any provisions written into an agreement which would improve our ability to independently measure more accurately the value of Soviet defense expenditures.

In sum, Soviet secrecy concerning defense expenditures and the opportunities for hiding military spending under other governmental functions or by manipulation of the prices paid for military goods make verification all but impossible at this time. Without a rather elaborate inspection system, considerable uncertainty would exist as to Soviet and US compliance with any ROB agreement. Moreover, even if both sides were to strictly follow the terms of such an agreement, differences in inflation rates as well as definitional problems could lead to serious imbalances in the forces of the two countries.

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### Dollar Cost Implications of Soviet SAM Design and Maintenance Practices

[redacted] estimates the dollar cost for operation and maintenance of the SA-2 and SA-3 surface-to-air missile systems. The study is based on an extensive body of data [redacted]

[redacted] reflect [redacted] assessment that these systems are highly reliable and incorporate good basic maintenance features which facilitate repairs and adjustment.

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The US, on the other hand, has followed a different approach

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**Impact on Dollar Cost Estimates.** [redacted] describes Soviet SAM design and maintenance practices which are quite different from those for US systems [redacted] demonstrates clearly that these practices have a substantial impact on the estimated dollar costs of operations and maintenance—that is, what it would cost in the US to operate and maintain the equipment following Soviet operating practices. Estimates of the dollar costs for the Soviet systems based on cost data from US systems resulted in cost estimates substantially higher [redacted] The study shows that future research should emphasize the development of costing methodologies which more accurately reflect actual Soviet design and maintenance practices. [redacted]

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## The Soviet General Staff Academy

The General Staff Academy is the most prestigious military educational institution in the USSR and is responsible for the training of senior command cadres of the Soviet and Warsaw Pact armies and for research on military science and art. A recent Soviet history\* of the Academy has provided new insight into its subordination, organization, and functions, and its impact on the careers of senior officers.

**Organization.** The academy, which was established in 1936, is directly subordinate to the chief of the General Staff, a first deputy minister of Defense. The

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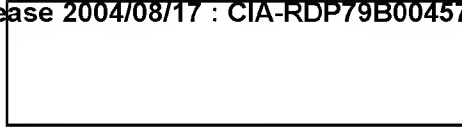
There are at least four main faculties or chairs (kafedra) in the academy: Strategy, Operational Art, History of War and Military Art, and Marxism-Leninism.

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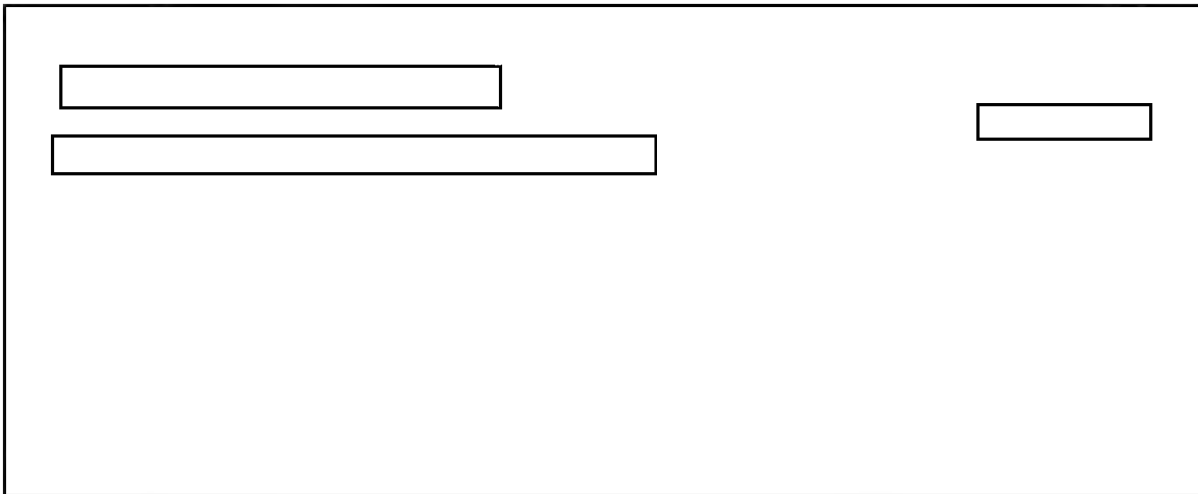
\* V. G. Kulikov, ed., *Akademiya General'nogo Shtaba*, (Moscow: Voenizdat, 1976).

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**Cadre Training.** There are two basic courses offered at the academy. The first is a two-year course for senior field grade officers and junior general and flag officers. The second is the Higher Academic Course—a refresher course for senior command and staff personnel.

To be eligible for nomination to the two-year course, an officer must be a graduate of one of the various military academies of the branches or arms of the armed forces, preferably the Frunze Academy. Candidates are nominated by their military district commander or equivalent in the central apparatus of the Ministry of Defense, based on the candidates' superior qualifications in command and particularly staff work.

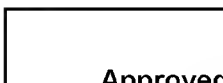
Since the 1961/1962 academic year, Warsaw Pact officers have been integrated with their Soviet counterparts in the regular two-year course. Prior to that time, Warsaw Pact officers attended a special course at the academy apart from the Soviet officers.



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Graduates of the two-year course are normally placed in responsible command and staff positions throughout the armed forces. Of the approximately 700 honor

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graduates (gold medal winners) since 1948, well over 100 are still serving as commanders and chiefs of staff of military districts and groups of forces as well as in leading posts of the Ministry of Defense and in higher military educational institutions.

The second offering of the academy is the Higher Academic Course

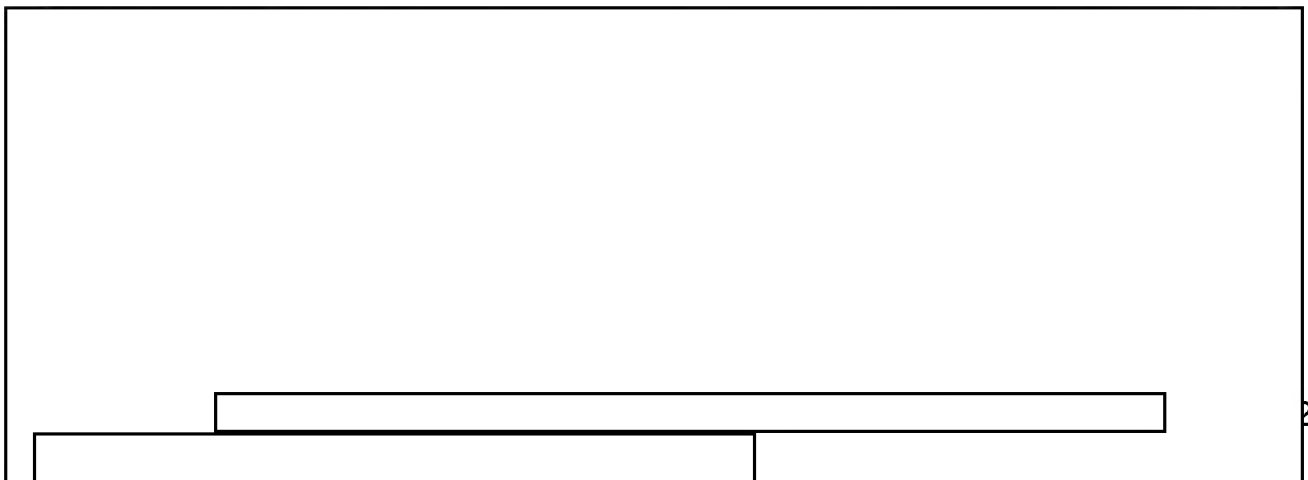
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This course was created to keep senior command and staff personnel abreast of contemporary strategy and technological advances of both the Soviet armed forces and their primary opponents. The basic elements of this curriculum include:

- Character of Future War
- Contemporary Operations
- Military Doctrine of Capitalistic States
- Options of the Branches of Service in Strategic Operations
- Changes in the Structure and Development of the Armed Forces.

**Research.** Beyond its role in training senior officers for the Ministry of Defense, the General Staff Academy is also one of the leading Soviet scientific research institutions in military affairs. The academy's charter calls for the faculty to complete research on the "fundamental problems of military science and art" and to prepare monographs, textbooks, and educational aids for the academy's curriculum.

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**Comparison With US War Colleges.** The US does not have an exact equivalent of the Soviet General Staff Academy. While there are some similarities between the activities of the US war colleges and the academy, there are also significant differences.

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Higher military education in the US is not as centralized. Each service has its own war college, and there are two joint-services war colleges. An officer who attends one does not usually progress to another; he is considered to have completed his formal military education.

In addition, the curriculums of the General Staff Academy and the US war colleges appear to differ in important respects. The General Staff Academy offers two levels of training—the basic two-year course and the Higher Academic Course. In the US there is basically one level, and each course is one academic year. Further, the General Staff Academy appears to emphasize operational training and war games, whereas the US war colleges spend more time on the role of the military in international affairs and military management in a peacetime environment. Finally, while some directed research is performed at the US war colleges, the General Staff Academy appears to conduct a considerable amount of research

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## The Collegium of the Soviet Ministry of Defense

Recent evidence and a reexamination of older material have revealed the membership and probable functions of the Soviet Ministry of Defense Collegium. The Collegium appears to be the peacetime nucleus for the Supreme High Command and may be identical with or the successor to the Main Military Council.

**Composition.** On 20 December 1976, the Soviet newspaper *Red Star* carried a commemorative photograph of Brezhnev and officials of the Ministry of Defense taken on Brezhnev's seventieth birthday. The group included the Minister of Defense, the deputy and first deputy ministers, the chief of the Main Political Directorate of the armed forces, and the chief of the ministry's Main Personnel Directorate. The inclusion of the personnel chief, Army General I. N. Shkadov, was puzzling in that he was the only member of the group who held a post below the level of deputy minister.\* There was even some speculation among Western observers that it was not Shkadov in the photograph, but a replacement for Marshal

\* The chief of the Main Political Directorate, Army General A. A. Yepishev, does not hold the title of deputy minister, but his position equates to that of a first deputy minister.

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### Collegium of Soviet Ministry of Defense

Left to right, first row: S. G. Gorshkov, V. F. Tolubko, S. L. Sokolov, K. S. Moskalenko, L. I. Brezhnev, D. F. Ustinov, A. A. Yepishev, V. G. Kulikov, N. V. Ogarkov. Second row: A. V. Gelovani, I. N. Shkadov, I. G. Pavlovskiy, S. K. Kurkotkin, P. S. Kutakhov, N. N. Alekseyev, A. T. Altunin. (Not pictured: P. F. Batitskiy)

Batitskiy, the commander in chief of National Air Defense Forces and the only deputy defense minister not in the photograph. Batitskiy had made no public appearances since early fall and was believed to be ill.

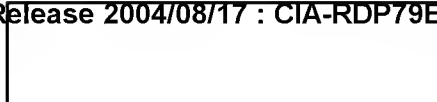
To resolve this question, the US Defense Attache Office in Moscow queried

Both confirmed that it was Shkadov in the photograph. When questioned further, that Shkadov was in the photograph because he was a member of the Collegium—the only member below the rank of deputy minister. Thus, we can conclude that the group in the photograph with Brezhnev is the Collegium of the Ministry of Defense.

The Collegium's chairman is almost certainly Defense Minister Ustinov. The 1973 edition of the *Large Soviet Encyclopedia* states that ministerial collegia in the USSR and the other socialist countries are chaired by the minister. There is also some precedent for including officials below the level of deputy minister in the Collegium. The *Soviet Military Encyclopedia* states that General A. P. Beloborodov, chief of the Main Personnel Directorate from 1957 to 1963, was concurrently a

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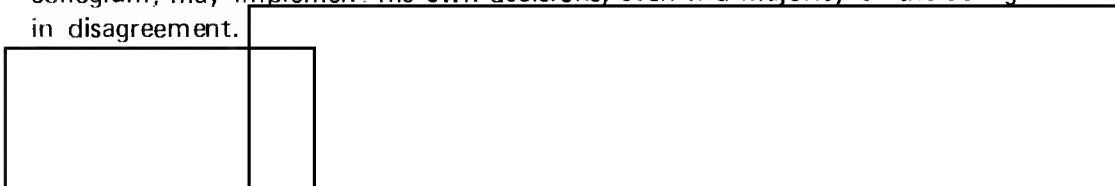


member of the Collegium. It also notes that General A. I. Antonov, while first deputy chief of the General Staff from 1954 to 1962, was also a member. Therefore, while the Collegium apparently consistently includes the deputy ministers, other senior personnel serve in that body from time to time.

**Functions.** Ministerial collegia, according to Soviet encyclopedias, debate questions and formulate recommendations on all significant matters pertaining to their ministries. These recommendations, however, can be implemented only if they have the approval of the minister. Moreover, the minister, as chairman of the collegium, may implement his own decisions, even if a majority of the collegium is in disagreement.

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The exact functions of the Collegium of the Ministry of Defense are unclear, but it may function as or form the nucleus for the Supreme High Command during wartime. Furthermore, the Collegium's membership closely resembles that of the Supreme Military Council and the Main Military Council.

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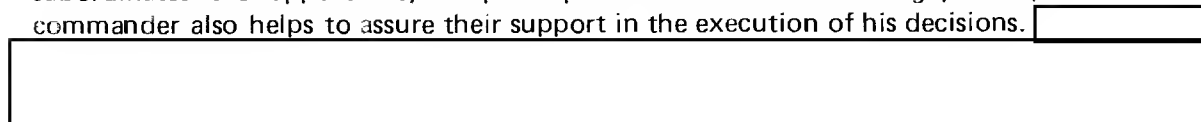
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Thus, from the descriptions of membership and activity, it appears that the Collegium is identical to and may be the successor to these bodies.

Assuming the Collegium of the Ministry of Defense functions as do other ministerial collegia, the principle of individual command (*yedinochaliye*) is not subordinated to that of collegiality. In fact, according to former Minister of Defense A. A. Grechko,\* the two principles function in "dialectical unity" and are historically justified. The Collegium, like the military councils of the services and military districts, allow the senior responsible officer an opportunity to draw on the training and experience of his subordinates to sharpen his own decisions. By providing his subordinates the opportunity to participate in the decisionmaking process, the commander also helps to assure their support in the execution of his decisions.

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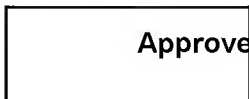
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\* Andrey Grechko, *Vooruzhennye Sily Sovetskogo Gosudarstva*, (Moscow: Voenizdat, 1975), p. 44.

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